UNIVERSITI PUTRA MALAYSIA

THE EFFECTIVENESS OF GUIDING BLOCK FOR THE VISUALLY DISABLED IN MALIOBORO STREET, YOGYAKARTA INDONESIA

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By

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Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of Requirement for the Degree of Master of Science

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THE EFFECTIVENESS OF GUIDING BLOCKS FOR THE VISUALLY DISABLED IN MALIOBORO STREET, YOGYAKARTA INDONESIA

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August 2003

Chairman: Wan Srihani Wan Mohamad

Faculty: Design and Architecture

One of the goals in the planning of modern cities would be to provide comfort, safety and flexibility for people of all ages, sizes and abilities. This concept is known as the Universal Design or Barrier Free Environments. Yogyakarta was the first city in Indonesia that introduced and promoted the Barrier Free Environment through the use of guiding block technique. However, the Malioboro pilot project has not been effectively utilised by the intended users, which are the visually disabled.

This study aimed to study the effectiveness of the guiding blocks in Malioboro Street. It attempted to seek ways in which the guiding blocks could be utilised more widely by users, especially the visually disabled.

This research used a triangulation technique to obtain the data. It consisted of: a) questionnaire with 150 respondents from 3 groups (50 visually disabled, 50 street

vendors and 50 visitors); b) observation, utilising the place mapping centre technique; and c) interview, with 35 informants (15 visually disabled, 8 street vendors, 8 visitors, 2 members of Non-Governmental Organizations (NGOs), and 2 government officials).

In this study, it was been observed that the guiding blocks were not effectively used by the visually disabled. This is due to different groups of users of Malioboro Street that have different perceptions regarding the functions of the guiding blocks on Malioboro Street; the visually disabled are monitored by a few organizations which are less influential, and therefore their rights, needs and requirements are not recognized by others; there is a strong competition for spaces along the street resulting in the visually disabled facilities being ignored; there is a lack of enforcement on the part of the authorities; there is not enough awareness campaign being conducted to instil understanding and respect on the need of the visually disabled to use the guiding blocks; the spaces along the street are not delineated clearly according to different users, and there is a lack of political will to ensure that guiding blocks are effectively utilised.

The following recommendations are made to improve the effectiveness of the guiding blocks for the visually disabled. These are: more involvement of all parties such as government, Non-Governmental Organizations (NGOs), community, university students, etc to look into the needs of the visually disabled to use the guiding blocks. These groups can offer ideas to solve problems arising from the use of the guiding blocks; there is also a need to provide complimentary facilities which may include

ramps, phone booth, rest places and shelter for the visually disabled to function effectively; there should be a wider and more frequent dissemination of information on the needs of the disabled to use the guiding blocks; and there should be a effective law enforcement to assist the visually disabled to use the blocks.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Master Sains

KEBERKESANAN BLOK PANDUAN UNTUK ORANG CACAT PENGLIHATAN DI JALAN MALIOBORO, YOGYAKARTA INDONESIA

Oleh

MIRNA HASTUTI

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Pengerusi: **Wan Srihani Wan Mohamad**

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Salah satu matlamat dalam merancang sesebuah bandar moden adalah menyediakan keselesaan, keselamatan dan kemudahan bagi pengguna dari semua peringkat umur, saiz dan kemampuan. Konsep ini dikenali sebagai Reka Bentuk Am atau Persekitaran Tanpa Halangan. Yogyakarta adalah bandar pertama di Indonesia yang memperkenalkan dan mempromosikan Persekitaran Tanpa Halangan melalui teknik blok panduan. Walau bagaimanapun, projek pertama di Malioboro ini didapati kurang keberkesanannya.

Kajian ini bertujuan untuk menganalisa keberkesanan blok panduan di Jalan Malioboro. Ini adalah dalam usaha untuk mencari pendekatan supaya blok panduan dapat digunakan secara meluas oleh pengguna, terutama golongan yang cacat penglihatan.

Kajian ini menggunakan kaedah triangulasi untuk mendapatkan data, iaitu: a). soal selidik dimana 150 orang dari 3 kumpulan (50 orang cacat penglihatan, 50 penjaja kaki lima dan 50 pelawat); b). pemerhatian, memanfaatkan teknik pusat pemetaan tempat; and c). temuduga dengan 35 orang yang terpilih (15 orang cacat penglihatan, 8 penjaja kaki lima, 8 pelawat, 2 anggota organisasi bukan kerajaan dan 2 pegawai kerajaan).

Dalam kajian ini didapati bahawa blok panduan tersebut sememangnya tidak digunakan sepenuhnya bagi mereka yang cacat penglihatan. Ini disebabkan oleh kumpulan-kumpulan penggunanya yang berbeza mempunyai tanggapan yang berbeza tentang fungsi blok panduan di Jalan Malioboro; mereka yang cacat penglihatan bergerak di bawah beberapa organisasi yang kekurangan dari segi kuasa oleh itu hak-hak keperluan dan keinginan mereka tidak diberi perhatian oleh golongan lain; persaingan bagi mendapatkan ruang adalah tinggi di sepanjang jalan berkenaan sehingga kemudahan mereka yang cacat penglihatan terabai; kurang perlaksanaan undang-undang oleh pihak yang berkuasa; kurangnya kempen kesedaran untuk mewujudkan pemahaman dan rasa hormat terhadap mereka yang cacat penglihatan untuk menggunakan blok panduan; ketidak jelasan penanda sempadan untuk pengguna-pengguna yang berbeza, dan kurang campur tangan politik bagi memastikan bahwa blok panduan tersebut dapat digunakan dengan berkesan.

Berikut adalah cadangan-cadangan yang merupakan usaha dalam meningkatkan tahap keberkesanan blok panduan untuk golongan yang cacat penglihatan, iaitu: penglibatan dari semua pihak ini termasuklah dari pihak kerajaan, organisasi bukan kerajaan,

masyarakat, pelajar, universiti dan lain-lain, yang mempunyai hubungan dengan orang yang cacat penglihatan untuk menggunakan blok panduan. Kumpulan-kumpulan ini dapat menyumbangkan idea-idea untuk mengatasi masalah meningkatkan penggunaan blok panduan tersebut di mana penglibatan tersebut boleh didapati dalam bentuk pertandingan projek-projek antara pelajar; keperluan menambahkan kemudahan. Contohnya seperti landas angkat, pondok talipon, wakaf dan tempat perlindungan lain untuk golongan cacat penglihatan untuk membolehkan ianya berfungsi secara lebih berkesan; penyebaran maklumat berkenaan penggunaan jalur panduan perlu disampaikan secara meluas kepada pengguna Jalan Malioboro; dan perlunya penguatkuasaan undang-undang yang lebih berkesan untuk membantu orang yang cacat penglihatan dalam menggunakan blok panduan.

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I certify that an Examination Committee met on 4 August 2003 to conduct the final examination of Mirna Hastuti on her Master of Science thesis entitled "The Effectiveness of Guiding Blocks for The Visually Disabled in Malioboro Street, Yogyakarta, Indonesia" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulation 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination committee are as follows:

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This thesis submitted to the Senate of Universiti Putra Malaysia has been accepted as fulfillment of the requirement for the degree of Master of Science. The members of the supervisory committee are as follows:

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DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations, which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.

MIRNA HASTUTI

Date: 15 August 2003

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CHAPTER 1

INTRODUCTION

This study was initiated by the researcher based on the interest in the provision of a Barrier Free Environment for people of all ages, sizes and abilities. Yogyakarta was the first city in Indonesia to introduce Barrier Free Environments using guiding blocks as a tool in creating the accessibility for the visually disabled. Barrier Free Environments mean giving users the possibilities to use space in a continuous process to be able to move around without restriction. This project known as the "Malioboro Pilot Project" was implemented along the busy Malioboro Street.

1.1 Background of the Study

Accessibility or the ability to move around is a basic necessity for humans. Limiting someone's ability to move is, therefore, violating his or her human right (Hastuti & W. Srihani, 2002). All people should enjoy such ability because every human being is created with their own abilities. According to Setyo (2000), there are two groups of disabilities. The first group is people who experiences in mobility temporarily. These are the very young children, pregnant women, and people who have temporary mobility problems such as injuries. On the other hand, the disabled, elderly people and people with chronic diseases are the examples of those having permanent-mobility condition.

The United Nations (1995) predicted that there are 300 million people with disabilities in Asia. Kwan (2000) noted that the population of people who are over 60 years old would drastically increase in Hong Kong, China, Korea, India, Indonesia, Malaysia and Singapore in the next 25 years. This will subsequently increase the number of disabled population.

Unfortunately, the disabled rarely get equal rights and opportunities in social life. This is especially true with the provision of public facilities which have not taken into account their special needs. There is an urgent need to build facilities which are universal in the sense that they can be used by all people (Welch, 1995).

The United Nations (1995) through the Economic and Social Commission for Asia and Pacific (ESCAP), introduced the concept of "the non-handicapping environment or Barrier Free Environment" in 1993. This concept addressed the need to provide opportunities for the full participation and equality of people with disabilities. The United Nations (1995) also declared that all part of the built environment should be designed to include the need of people with disabilities and frailties. This is in line with Lynch (1992) who forwarded the idea that a good city should be a city that can be accessed equally by all people.

According to Barter and Rahman (2000), people with disabilities or disabled people include individuals with physical, sensory, or cognitive problems. They are neither sensitively nor seriously taken into account in the planning and the implementation of social policies or structural design. Many public facilities are still off limits to

these special populations. One of these places is the pedestrian walkway. The pedestrian walkway is an important urban element which provides connectivity and for activities between spaces. A walkway provides means for pedestrians to get to their destination. Thus, the pedestrian walkway is a public facility which should be accessible, and enjoyed by all people. Therefore, a public facility that cannot be used by all people is a form of discrimination (Setyo, 2000). It impedes the mobility of certain groups of people who cannot use the facilities.

A number of tools have been used to facilitate the movement of the visually disabled in a public space. One of the techniques that has been promoted and implemented by ESCAP to realise the concept of Barrier Free Environment for the disabled is the guiding blocks. Guiding blocks are pathways in the form of highly textured tiles which the visually disabled or the blind can sense through their working sticks (Public Work Department of Indonesia, 1998).

Guiding blocks are specially built tiles arranged as a path to guide the visually disabled people walk by using the texture of the tiles with polka dot motives, which then give admonition about the changes in situation around the area. Such guiding blocks are specially used as a guide for the visually disabled as their facility of movement to get to the destination they want. The guiding blocks are the easiest and most economical tools which can be installed over a large site with various high intensity functional activities of the city that are being conducted. In this research Malioboro Street was chosen because of its strategic location in the centre of the city which was of national interest.

In Indonesia, Yogyakarta is the first city chosen by ESCAP to implement the Barrier Free Environment concept. Guiding blocks were installed on Malioboro Street in 1999. This project is now known as the "Malioboro Pilot Project". According to Parker and Sasiang (2000), "Malioboro Pilot Project" is one of the models of a Barrier Free Environment in Asian cities.

Yogyakarta was founded in 1756. It has been declared as the first tourism city in Indonesia and subsequently becomes the second most important tourism destination after Bali Island (Adishakti, 1997). Besides being a tourist city, Yogyakarta is also a centre for arts and education in Indonesia. This can be seen by the numerous arts and cultural centre as well as universities found in and around the city. Its population in 1998 was estimated to be 3.185.384 (Badan Pusat Statistik , 1998).

Malioboro Street forms an axis crossing the centre of the city in a north south direction. It is a very important street as in it is the main hub of activities for Yogyakarta. It is a historical street, a major economic centre and a tourists' destination. The street is a major route in the city's circulation system (Ihlas *et al.*, 2001).

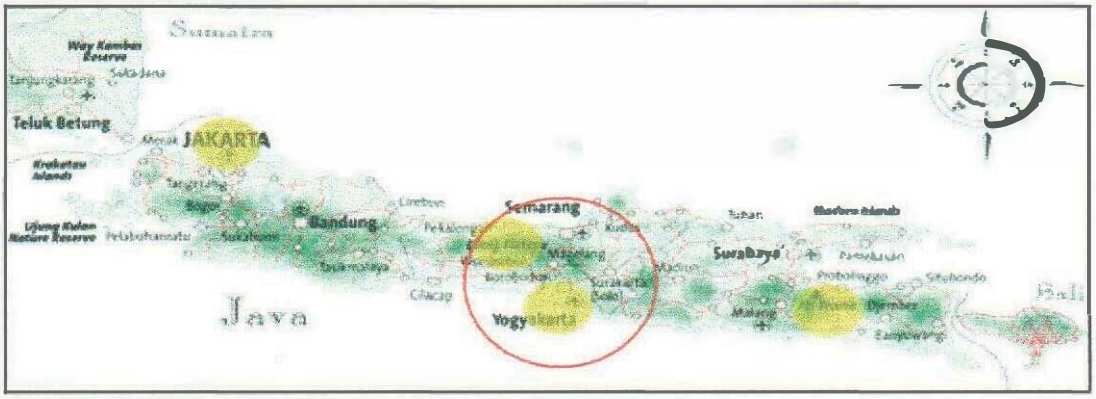

Figure 1.1: Map of Indonesia, Yogyakarta special region.

Nevertheless, despite its uniqueness and importance, the street is not accessible to groups of people having mobility impediments, which include the disabled, the elderly people, pregnant women, etc. In line with the "non-handicapping environment or Barrier Free Environment" concept, ESCAP commissioned Gadjah Mada University in 1992 to identify the problems and needs of this group. Subsequently, the University started an initiative to promote barrier free built environment that attracted other universities, government agencies as well as NGOs. The group proposed the Disabled Persons Law No. 4 (ratified in 1997) and the National Technical Guidelines for Accessibility in Buildings and Built-up Environment launched in 1998 by the Minister of Public Works known as "Ministry Decree 468" (Ikaputra and Sholihah, 2001). The guidelines contain more than 15 features such as doors, lifts, toilets, bathroom sinks, telephones, signboards, ramps, teletexts, stairs, pedestrian walkways, etc.

In 1999, the group also initiated a pilot project in Malioboro area. The Malioboro Pilot Project was the first barrier free pilot project in Indonesia. For the Malioboro Pilot Project, it was decided that the guiding blocks were chosen for the visually disabled as a promotion and learning tools in creating the accessible environment.

Yogyakarta has 159.269 disabled people and the visually disabled reach 46.091 people (Badan Pusat Statistik, 1998). World Health Organization stated that the number of the visually disabled in Indonesia was the highest in south East Asia (Kompas, 2002). The implementation of the guiding blocks as safe guide for the visually disabled stretched for about 1.3 kilometres in length and was constructed in

a commercial area with an initial phase with the Braille Blocks (guiding blocks and warning blocks).

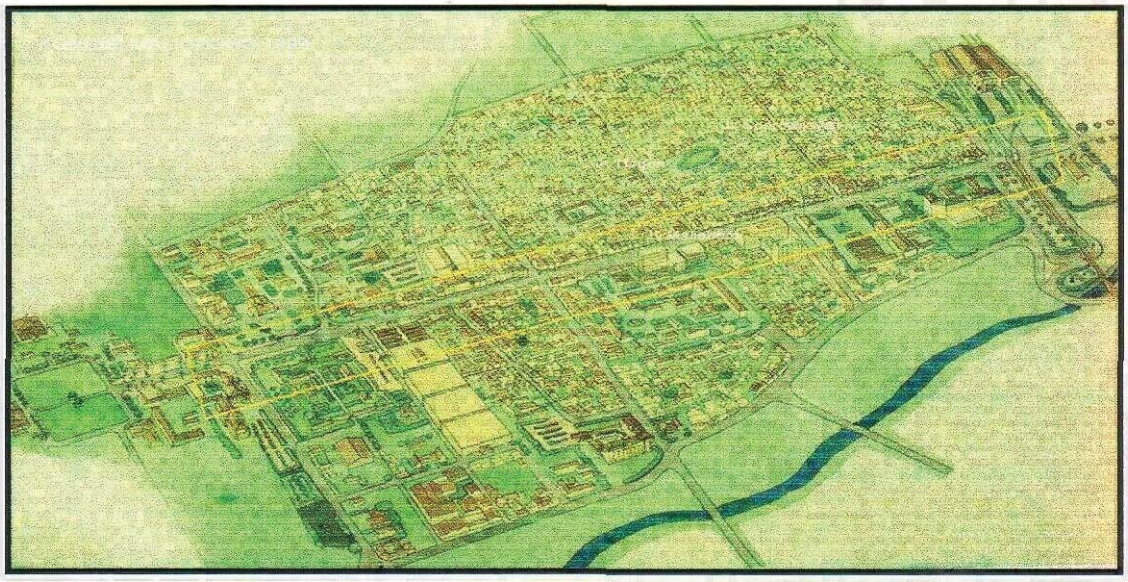

Figure 1.2: Map of Study Area.

1.2 Problem Statement

The provision of a Barrier Free Environment has not been legally incorporated in any development projects in Indonesia. This has created problems for disabilities rendering them incapable of contributing effectively to the national economy. A study by Ikaputra and Wibisono (2002). The causes of the problems are:

a. a lack of legislation to create a Barrier Free Environment in Indonesia, and

b. a lack of awareness on the need to create such an environment.

To overcome these problems, several recommendations were forwarded. Amongst them was the introduction of a technical standard for the accessible environment for all the people in Indonesia. The Decree of Public Works Minister No.